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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,704	03/30/2004	Calvin C. Potter	H0006363--3112	7377
128	7590	03/21/2006	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			TIBBITS, PIA FLORENCE	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/813,704

Applicant(s)

POTTER ET AL.

Examiner

Pia F. Tibbits

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/30/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION*****Drawings***

1. Figures 1 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated [see 20060054074]. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-27 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-35 of copending U.S. Published Application No. **20060054074** in view of disclosed prior art, **Zhang et al.** [6575248].

They both describe a charging system for an unmanned underwater vehicle, comprising: an electrical port adapted to electrically couple to an unmanned underwater vehicle (UUV); a generator/fuel cell configured to generate electrical power; and a controller adapted to receive a UUV docking signal

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that indicates at least that the electrical port is electrically coupled to the UUV and operable, in response thereto, to selectively electrically couple the generator/fuel cell to the electrical port/battery.

With regard to the '074 application using a fluid-powered turbine adapted to receive a flow of fluid and configured, upon receipt thereof, to rotate, and activate the generator: by eliminating the turbine applicant neither extends the life of the batteries being recharged, nor makes it easier to replenish a power source in a UAV, which is the object of his invention, as cited in the disclosure. Therefore it would be obvious to one skilled in the art at the time the invention was made that the elimination of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before. See *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989), *In re Larson*, 340 F.2d 965, 144 USPQ 347 (CCPA 1965) and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

The '074 application does not disclose charging a fuel cell and selectively fluidly couple the fuel cell to the fuel source.

Zhang discloses fuel cells are especially well suited for subsea use in connection with offshore wells since the primary waste product generated from fuel cell usage is water (assuming a fuel source of hydrogen). The patent also discloses in figures 1-28 a charging system for a fuel cell including the fuel vessel 12 that comprises a source of a fuel suitable for use in the fuel cell, such as hydrogen gas or a reformed hydrocarbon, the oxidant vessel 14 contains an oxidant, such as air or oxygen gas under high pressure, used for refueling a fuel cell in connection with offshore wells used in commercial energy generation, powering electric vehicles, and powering other equipment, for example, communication and control equipment located in remote areas away from commercially available power sources [figures 1 and 14; column 1, lines 10-16; column 3, lines 42-46; . Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify '074 application and include Zhang's teachings in order to provide recharging for a power source better suited for subsea use in connection with offshore wells.

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As to the recitation selectively fluidly couple the fuel cell to the fuel source, it is an inherent function of the charging system disclosed by the '074 application and Zhang to selectively fluidly couple the fuel cell to the fuel source when recharging, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or **inherent**.

This is a provisional obviousness-type double patenting rejection.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Zhang**, as described above.

As to claim 1, Zhang does not specifically disclose an unmanned underwater vehicle.

As to the statement "adapted to electrically couple to an unmanned underwater vehicle (UUV)", it has been held that a recitation with respect to the manner or method in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. See ***Ex parte Wikdahl***, 10 USPQ2d 1546, 1548 (Bd. Pat. App. & Inter. 1989); ***Ex parte Masham***, 2 USPQ2d 1647, 1648 (Bd. Pat. App. & Inter. 1987); ***In re Casey***, 370 F.2d 576, 152 USPQ 235, 238 (CCPA 1967); see also M.P.E.P. § 2111.02. A process or environment of use limitation in an apparatus claim will not patentably distinguish the claim from the prior art unless it somehow imposes a structural limitation.

"[I]ntended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art." M.P.E.P. § 2111.02 (citing ***In re Casey***, 152 USPQ 235 (CCPA 1967) and ***In re Otto***, 136 USPQ 458, 459 (CCPA 1963)).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Zhang's teachings in an unmanned underwater vehicle (UUV), since the examiner takes Official Notice of the equivalence of power generating via fuel cell and power generating via a turbine and generator for their use in the underwater power generating art, and the selection of any of these known equivalents to power an unmanned underwater vehicle (UUV) would be within the level of ordinary skill in the art. Inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. *In re Fout*, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

As to claims 2-27, see remarks and reference above.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art cited in PTO-892 and not mentioned above disclose related apparatus.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is 571-272-2086. If unavailable, contact the Supervisory Patent Examiner Karl Easthom whose telephone number is 571-272-1989. The Technology Center Fax number is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFT

March 16, 2006

Pia Tibbits

Primary Patent Examiner

